

IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Please replace the first paragraph on page 1, commencing on line 6, with the following amended paragraph:

The present Application for Patent is related to ~~co-pending~~ Application for Patent entitled "METHOD AND APPARATUS FOR BEAM SWITCHING IN A WIRELESS COMMUNICATION SYSTEM" by Ahmad Jalali et al., ~~having Attorney Docket Number PA000331~~, filed June 29, 2000, now U.S. Patent No. 6,751,206, issued on June 15, 2004, and assigned to the assignee hereof.

Please replace the second paragraph on page 3, commencing on line 15, with the following amended paragraph:

Transmission of high-rate data traffic and voice traffic over the forward and reverse links is proposed in a high-data-rate standard. In accordance with the proposed high-data-rate standard, the data traffic or voice traffic is partitioned into time slots of variable duration. A code channel frame comprises one to sixteen time slots. Beamforming techniques for decreasing interference caused by transmissions of a base station to subscriber stations in neighboring cells are described in detail in U.S. Patent Application Serial No. 09/388,267, filed September 1, 1999, entitled "METHOD AND APPARATUS FOR BEAMFORMING IN A WIRELESS SYSTEM," now U.S. Patent No. 6,778,507, issued August 17, 2004 to Jalali, assigned to the assignee of the present invention and expressly incorporated by reference herein.

Please replace the last paragraph on page 3, commencing on line 25 and bridging pages 3 and 4, with the following amended paragraph:

A significant difference between voice services and data services is the fact that voice services impose stringent and fixed delay requirements. Typically, the overall one-way delay of

speech frames must be less than 100 msec. In contrast, the data delay can become a variable parameter used to optimize the efficiency of the data communication system. Specifically, more efficient error correcting coding techniques which require significantly larger delays than those that can be tolerated by voice services can be utilized. An exemplary efficient coding scheme for data is disclosed in U.S. Patent Application Serial No. 08/743,688, entitled "SOFT DECISION OUTPUT DECODER FOR DECODING CONVOLUTIONALLY ENCODED CODEWORDS," filed November 6, 1996, now U.S. Patent No. 5,933,462, issued August 3, 1999 to Sindhushayana et al., assigned to the assignee of the present invention, and expressly incorporated by reference herein.

Please replace the last paragraph on page 4, commencing on line 30, with the following amended paragraph:

It is well known that in cellular systems the carrier-to-interference ratio C/I of any given user is a function of the location of the user within the coverage area. In order to maintain a given level of service, TDMA and FDMA systems resort to frequency reuse techniques, i.e., not all frequency channels and/or time slots are used in each base station. In a CDMA system, the same frequency allocation is reused in every cell of the system, thereby improving the overall efficiency. The C/I that any given user's subscriber station achieves determines the information rate that can be supported for this particular link from the base station to the user's subscriber station. Given the specific modulation and error correction method used for the transmission, a given level of performance is achieved at a corresponding level of C/I . For an idealized cellular system with hexagonal cell layouts and utilizing a common frequency in every cell, the distribution of C/I achieved within the idealized cells can be calculated. An exemplary system for transmitting high-rate digital data in a wireless communication system is disclosed in ~~opening~~ U.S. Patent Application Serial No. 08/963,386, entitled "METHOD AND APPARATUS FOR HIGHER RATE PACKET DATA TRANSMISSION," (hereafter the '386 application), filed November 3, 1997, now U.S. Patent No. 6,574,211, issued June 3, 2003 to Padovani et al., assigned to the assignee of the present application, and expressly incorporated by reference herein.

Please replace the last paragraph on page 17, commencing on line 23, with the following amended paragraph:

FIG. 6 is a block diagram of an exemplary reverse link architecture configured in accordance with one embodiment. Data is partitioned into data packets and provided to encoder 612. For each data packet, encoder 612 generates Cyclic Redundancy Check (CRC) parity bits, inserts code tail bits, and encodes the data. In one embodiment, encoder 612 encodes the packet in accordance with the encoding format disclosed in the aforementioned U.S. Patent Application Serial No. 08/743,688, now U.S. Patent No. 5,933,462. Other encoding formats can also be used. The encoded packet from encoder 612 is provided to interleaver 614 which reorders the code symbols in the packet. The interleaved packet is provided to multiplier 616, which covers the data with a Walsh cover and provides the covered data to gain element 618. Gain element 618 scales the data to maintain a constant energy-per-bit, E_b , regardless of the data rate. The scaled data from gain element 618 is provided to multipliers 650b and 650d which spread the data with PN_Q and PN_I sequences, respectively. The spread data from multipliers 650a and 650d are provided to filters 652a and 652d, respectively, which filter the data. The filtered signals from filters 652a and 652b are provided to summer 654a and the filtered signals from filter 652c and 652d are provided to summer 654b. Summers 654 sum the signals from the data channel with the signals from the pilot/DRC channel. The outputs of summers 654a and 654b comprise IOUT and QOUT, respectively, which are modulated with the in phase sinusoid $\cos(w_c t)$ and the quadrature sinusoid $\sin(w_c t)$, respectively (as in the forward link), and summed (not shown) prior to transmission. In the exemplary embodiment, the data traffic is transmitted on both the inphase and quadrature phase of the sinusoid.

Please replace the first paragraph on page 19, commencing on line 1, with the following amended paragraph:

In the exemplary embodiment, the reverse link data channel supports four data rates, which are tabulated in Table 1. Additional data rates and/or different data rates can be supported.

In the exemplary embodiment, the packet size for the reverse link is dependent on the data rate, as shown in Table 1. As described in the aforementioned U.S. Patent Application Serial No. 08/743,688, now U.S. Patent No. 5,933,462, improved decoder performance can be obtained for larger packet sizes. Thus, different packet sizes than those listed in Table 1 can be utilized to improve performance. In addition, the packet size can be made a parameter, which is independent of the data rate.

Please replace the last paragraph on page 19, commencing on line 14 and bridging pages 19 and 20, with the following amended paragraph:

As shown in Table 1, the reverse link supports a plurality of data rates. In the exemplary embodiment, the lowest data rate of 9.6 kbps is allocated to each subscriber station upon registration with a base station. In the exemplary embodiment, subscriber stations can transmit data on the lowest-rate data channel at any time slot without having to request permission from a base station. In the exemplary embodiment, data transmissions at the higher data rates are granted by the selected base station based on a set of system parameters such as system loading, fairness, and total throughput. An exemplary scheduling mechanism for high speed data transmission is described in detail in U.S. Patent Application No. 08/798,951, entitled "METHOD AND APPARATUS FOR FORWARD LINK RATE SCHEDULING," filed February 11, 1997, now U.S. Patent No. 6,335,922, issued January 1, 2002 to Tiedemann et al., and U.S. Patent Application Serial No. 08/914,928, entitled "METHOD AND APPARATUS FOR REVERSE LINK RATE SCHEDULING," filed August 20, 1997, now U.S. Patent No. 5,923,650, issued July 13, 1999 to Chen et al., both are assigned to the assignee of the present invention and incorporated by reference herein.

Please replace the last paragraph on page 22, commencing on line 26 and bridging pages 22 and 23, with the following amended paragraph:

In an exemplary embodiment, the C/I measurement can be performed on the forward link pilot signal in a manner similar to that used in a CDMA system. A method and apparatus for performing the C/I measurement is disclosed in U.S. Patent Application Serial No. 08/722,763,

entitled "METHOD AND APPARATUS FOR MEASURING LINK QUALITY IN A SPREAD SPECTRUM COMMUNICATION SYSTEM," filed September 27, 1996, now U.S. Patent No. 5,903,554, issued May 11, 1999 to Saints, assigned to the assignee of the present invention, and expressly incorporated by reference herein. The C/I measurement on the pilot signal can be obtained by despreading the received signal with the short PN codes.

Please replace the last paragraph on page 28, commencing on line 30 and bridging pages 28 and 29, with the following amended paragraph:

FIG. 8 illustrates a receiver circuit 700 operating within one of the sectors of a cell in a wireless communication system. The receiver circuit 700 estimates the C/I and provides a corresponding DRC message back to a base station (not shown). Receiver 700 includes an antenna 702, an RF/IF processor 704, a bandpass filter 706, and a sampler 708, coupled to an equalizer 710. In the exemplary embodiment, the equalizer 710 is a Finite Impulse Response (FIR) filter for averaging a discrete sequence of input values. An exemplary equalizer is described in U.S. Application No. 09/624,319, ~~for Patent~~ entitled "METHOD AND APPARTUS APPARATUS FOR PROCESSING A MODULATED SIGNAL USING AN EQUALIZER AND RAKE RECEIVER," filed July 24, 2000, assigned to the assignee hereof and expressly incorporated by reference herein.

Please replace the second paragraph on page 31, commencing on line 10, with the following amended paragraph:

The output estimate, $\hat{y}_i(n)$, is provided to other modules within receiver 700, and is provided to coefficient adjustment unit 730. The coefficient adjustment unit 730 determines the current time slot and adjusts the corresponding set of coefficients. The coefficients are stored in a memory storage device (~~not shown~~) 732 and retrieved as needed for calculations during each time slot. For example, during the first time slot, the calculations for sector A reflect the full power signal broadcast during that time slot. The C/I is expected to be larger than during the second or third time slots for sector A, when the power is reduced. Coefficient

adjustment unit 730 may include a look-up table correlating C/I estimates with associated DCRs. Note that a mobile unit sends a DRC for each time slot based on the C/I, which is averaged over corresponding time slots.